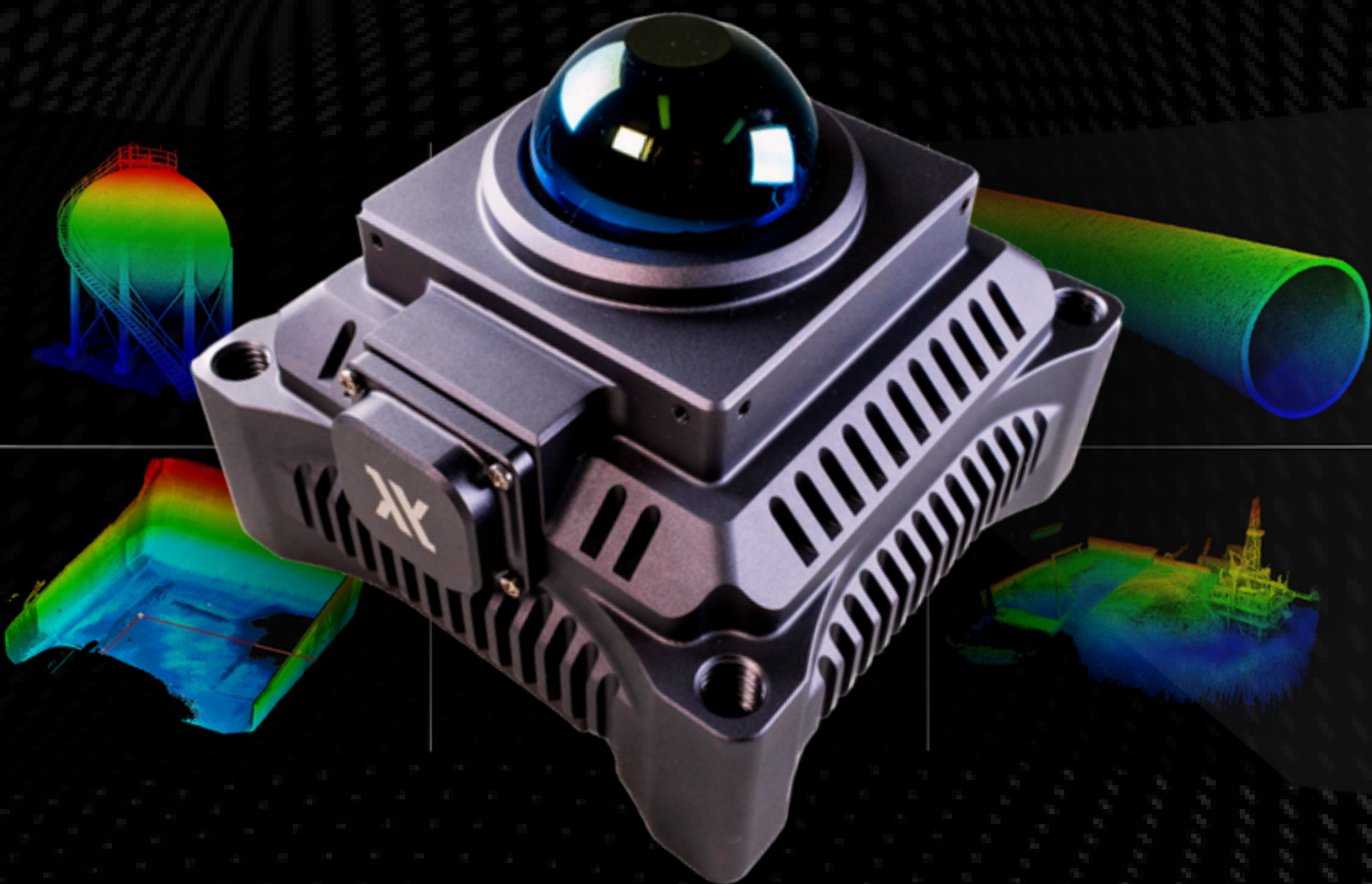


ARGUS | 3D SLAM

Technical Specifications



nexxis

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Argus: All in One 3D Mapping, Defect Localisation and Machine Vision

Smarter Mapping for Safer Inspections

Argus brings cutting-edge 3D SLAM technology to complex industrial environments. Including vessels, tanks, tunnels, and large-scale assets.

Built on **CSIRO's Wildcat™ SLAM**, it delivers local autonomy, real-time path planning, and high-resolution data for safer, more efficient inspections.

- Real-time SLAM and path planning for repeatable, structured inspections with geolocated defect tracking
- High-resolution 3D digital twins for remote analysis, condition monitoring, and collaborative decision-making
- Optimised for all environments: from confined spaces to expansive industrial sites

Flexible, Developer-Ready Integration

Working across handheld tools, crawlers, and autonomous platforms- Argus delivers flexible deployment for a wide range of industries and inspection scenarios.

With full ROS2 compatibility, SDK/API access, and modular setup options, Argus integrates easily into both new developments and existing systems, supporting OEM builds, automation projects, inspection workflows, and research applications with confidence.

Whether you are a research organisation or OEM integrating Argus into advanced robotics, an asset inspector capturing high-fidelity 3D data, or a site operator building accurate digital twins- Argus delivers the performance and adaptability you need.

INDUSTRIES

- Oil & Gas
- Petrochemical
- Nuclear
- Mining
- Renewables
- Municipal
- Defence

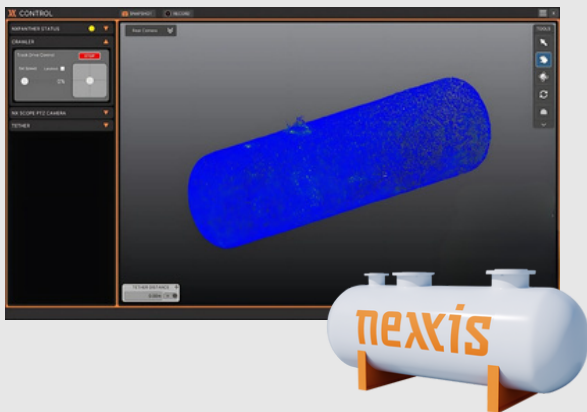
KEY APPLICATIONS

- 3D mapping complex structures, vessels, tanks, pipes - everything and anything
- Path planning
- Defect localisation
- Machine vision



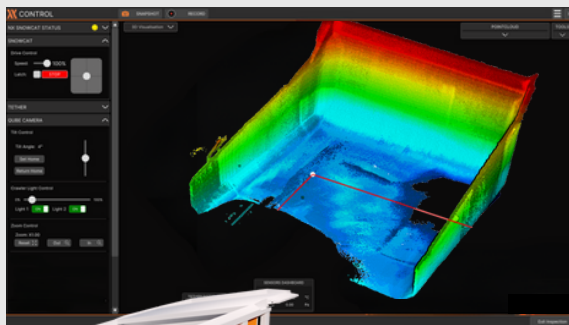
Applications

The combination of Argus' synchronised LiDAR and IMU data streams, enable it to generate accurate digital twins that can be shared via the cloud for remote collaboration, defect tracking, and change detection over time. There are countless ways to apply Argus; here are just a few:



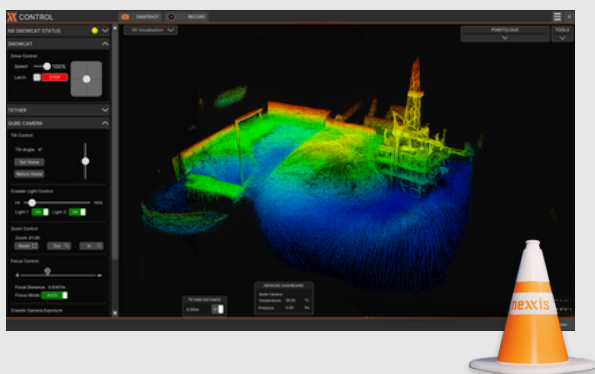
VESSELS, TANKS, PIPES

Argus creates detailed 3D models of pipes, tanks, and vessels, allowing inspectors to assess conditions remotely, track damage over time, and share accurate visuals without needing to revisit the site—saving time, improving safety, and enabling faster decisions.



EQUIPMENT AND ASSETS

From truck beds, to sleepers and structural steel, Argus captures high-resolution 3D scans that let teams monitor wear, damage, and repairs remotely. Share digital replicas with stakeholders for collaborative assessment, without interrupting operations.

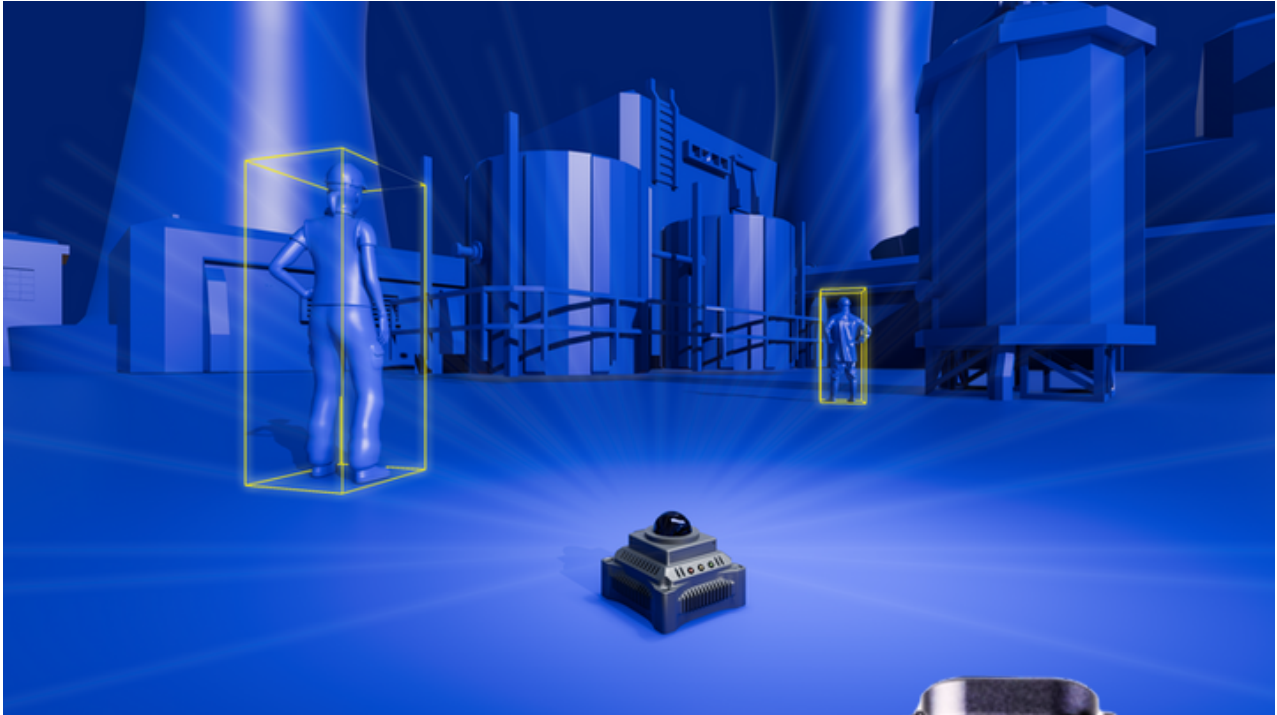


SITE PLANNING

Argus generates accurate 3D site maps to support pre-planning, workflow development, and shutdown preparation. By visualising the environment ahead of time, teams can coordinate more efficiently, identify risks, and optimise resources before setting foot on site.

Automation Capabilities

Capturing up to 2 million points per second, Argus delivers exceptional spatial awareness—empowering machines with the vision needed for automation and advanced perception. Backed by the ROS2 architecture, crawler compatibility is almost universal.



Package Options



HARDWARE ONLY

Hardware-only for 3D mapping and localisation. Use with your own software and SLAM system. *Ideal for researchers and OEMs needing just the hardware.*



HARDWARE + DEV API

Includes hardware, software interface, and Wildcat SLAM. Visualise and export data for your own systems. *Great for developers building custom robotics solutions.*



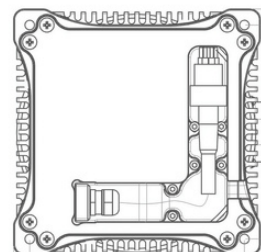
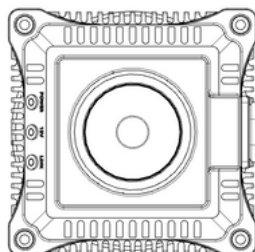
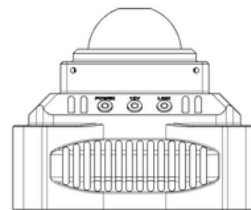
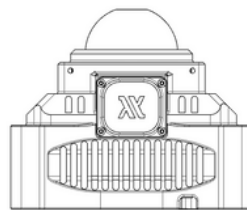
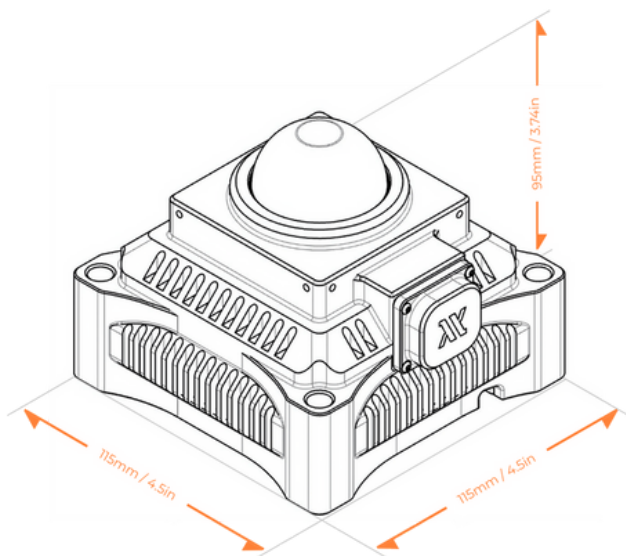
FULL SOLUTION

A complete ready-to-use system. Scan, view, export, and report—local or cloud. Perfect for users wanting an all-in-one, turnkey solution.



Technical Specifications

Mechanical	
DIMENSIONS	L 115MM, W115MM, H 95MM 4.5IN, 4.5IN, 3.74 IN
WEIGHT	1KG 2.2LBS
IP RATING	IP65
OPERATION TEMPERATURE	-20°C TO 55°C -4°F TO 131°F
ELECTRICAL	
CONNECTORS	BIRNS 7-PIN TCBH7MSS (MATES TO TCIL7F WHIP)
COMMUNICATIONS	100 BASE-T ETHERNET
POWER	30V TO 72V / 10 W
LiDAR	
SENSING RANGE	0.1 - 40M 0.1 - 43.7 YD
POINT RATE	200,000 POINTS PER SEC @ 10 HZ
FIELD OF VIEW	HORIZONTAL: 360°, VERTICAL: -7° ~52°
IMU	
ACCELEROMETER RANGE	± 4G, 8G, 16G
MAGNETOMETER RANGE	± 250 °/S, 500 °/S, 1000 °/S
DATA RATE	1 – 1000HZ



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